

REMARKS

With the cancellation of claim 1 and the addition of claim 43, claims 2-12, 25-28, 30, 32 and 36-43 are pending.

In response to the Examiner's objection that claims 1 and 42 were duplicate, claim 1 has been cancelled in favor of claim 42. Claim 43 has been added to direct to an embodiment of the modified polymerase according to the invention.

The insertions of SEQ ID NO:35, SEQ ID NO:36 and SEQ ID NO:37 in claims 2, 4 and 42 to accompany the DIETLYH, DIETFYH and DIETLY sequences are included as required by the Office Action. This language does not narrow the scope of the amended claim recitations because the amino acid sequences recited are not changed by the insertions.

The amendment to claim 28 is for grammatical purposes resulting in no narrowing of the amended recitation.

Support for the amendments to claim 42 and the new claim 43 can be found in the specification at page 19, line 10 to page 20, line 3, page 26, line 24 to page 27, line 4, page 28, line 22 to page 29, line 4, and Figure 1.

Advisory Action

The Advisory Action refuses to enter the Amendment filed on October 6, 2006 on the ground that the Amendment of October 6, 2006 raises new issues. The Advisory Action questions the intended meaning of "sequence represented by SEQ ID NO:35 or SEQ ID NO:36". In the Amendment filed on October 6, 2006, claim 2 recites "wherein in the DIETLYH or DIETFYH sequence represented by SEQ ID NO:35 or SEQ ID NO:36, histidine (H) has been replaced by an amino acid selected from ...". The insertion of "represented by SEQ ID NO:35 or SEQ ID NO:36" was made in the Amendment of October 6, 2006 because the Office Action requires that amino acid sequences be accompanied with sequence identifiers in the claims. In the Sequence Listing filed on October 6, 2006, the amino acid sequence of DIETLYH has a sequence identifier of SEQ ID NO:35, and the amino acid sequence of DIETFYH has a sequence identifier of SEQ ID NO:36. Because in claims 2 and 42 of the Amendment of October 6, 2006, the recitations objected to by the Examiner, i.e., "sequence represented by SEQ ID NO:35 or SEQ ID NO:36", were immediately preceded by "DIETLYH or DIETFYH", viewed together

with the Sequence Listing filed on October 6, 2006, one skilled in the art would have understood that “sequence represented by SEQ ID NO:35 or SEQ ID NO:36” merely recites the sequence identifiers to accompany “DIETLYH” and “DIETFYH” recited in claims 2 and 42.

Nevertheless, to advance prosecution, applicants have revised claims 2 and 42 slightly in the Claim Amendments presented in this paper, which states “wherein in the DIETLYH (SEQ ID NO:35) or DIETFYH (SEQ ID NO:36) sequence, histidine (H) has been replaced by an amino acid selected from...”.

The Advisory Action also questions the difference between these amendments and “DIETLY (SEQ ID NO:37)” recited in claim 4. Applicants note that in the Sequence Listing filed on October 6, 2006, the amino acid sequence DIETLY has a sequence identifier of SEQ ID NO:37. The insertion of “(SEQ ID NO:37)” in claim 4 is made to accompany the amino acid sequence, DIETLY, with its sequence identifier as required by the Office Action. This amendment to claim 4 differs from the amendments to claims 2 and 42 in that all these amendments are for reciting the sequence identifiers accompanying different amino acid sequences recited in the claims.

In a telephone interview with Examiner Hutson conducted on November 16, 2006, the Examiner informed the undersigned that he was not sure as to whether “represented by SEQ ID NO:...”, such as in claims 2 and 42, was intended to mean differently from “(SEQ ID NO:...)”, such as in claim 3. With the discussion during the interview, the undersigned assured the Examiner that “represented by SEQ ID NO:...” was intended to mean the same “(SEQ ID NO:...)”, especially because “represented by SEQ ID NO:...” and “(SEQ ID NO:...)” immediately follow the respective amino acid sequences recited in the claims. However, to advance prosecution and for consistency sake, claims 2 and 42 have been amended above by replacing the “represented by SEQ ID NO:...” format with the “(SEQ ID NO:...)” format. The undersigned would like to thank Examiner Hutson for the courtesy and assistance extended in the telephone interview.

The Advisory Action is accompanied with a Notice of Non-Compliant Amendment (37 CFR 1.121) for Applications Under Accelerated Examination. However, applicants note that applicants have not requested that the instant application be granted special status under the accelerated examination program. The public PAIR of the U.S. Patent and Trademark Office also does not show that the application is under the accelerated examination program. Examiner

Hutson confirmed in the telephone interview that an erroneous form had been used in preparing the Notice, which should not have indicated that the instant application was made special under the accelerated examination program. He indicated that the application was not made special under the accelerated examination program.

Claim Objections

Claims 1, 2, 4 and 42 were objected to for failing to recite the amino acid sequences with accompanying SEQ ID NOs. The objection to claim 1 has been rendered moot by its cancellation. Claims 2, 4 and 42 have been amended by inserting SEQ ID NO:35, SEQ ID NO:36 and SEQ ID NO:37 to accompany the recited DIETLYH, DIETFYH and DIETLY sequences.

Claims 1 and 42 were objected to as duplicate. Claim 1 has been cancelled in favor of claim 42.

Withdrawal of the objections is requested.

Claim Rejections -- 35 U.S.C. 112, First Paragraph

Claims 1-12, 25-28, 30, 32 and 36-42 were rejected as allegedly failing the written description requirement. Applicants respectfully traverse the rejections. To advance prosecution, claim 42 has been amended to be directed to a thermostable DNA polymerase modified from a thermostable DNA polymerase having the amino acid sequence of a thermostable DNA polymerase from *Pyrococcus furiosus*, *Pyrococcus kodakaraensis* KOD1 or *Thermococcus litoralis*, wherein the modification is the replacement of histidine by another amino acid in the DIETLYH or DIETFYH sequence within the exonuclease I region. Applicants submit that the subject matter of claims 2-12, 25-28, 30, 32 and 36-42 was fully described in the application as filed. Withdrawal of the rejections is requested.

Conclusion

In light of the above reasoning, applicants submit that the application is in a condition for allowance. A Notice of Allowance is believed in order.

In the event that the filing of this paper is deemed not timely, applicants petition for an appropriate extension of time. The petition fee, and any other fees that may be required in relation to the filing of this paper, can be charged to Deposit Account No. 11-0600, referencing Docket No. 10089/14.

Respectfully Submitted,

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